(No Model.)

J. REID.

DEFLECTOR FOR WATER CLOSET BASINS.

No. 307,226. Patented Oct. 28, 1884.

Fig. 1.

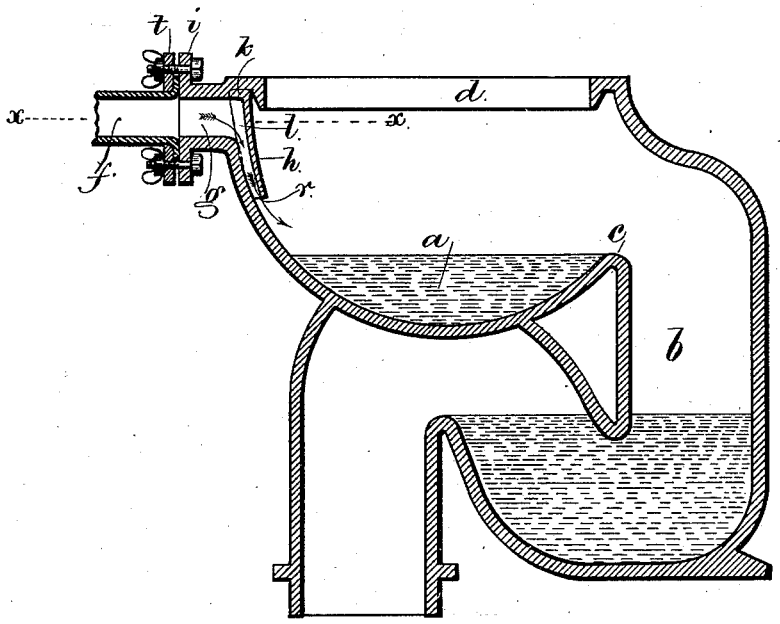


Fig. 2.

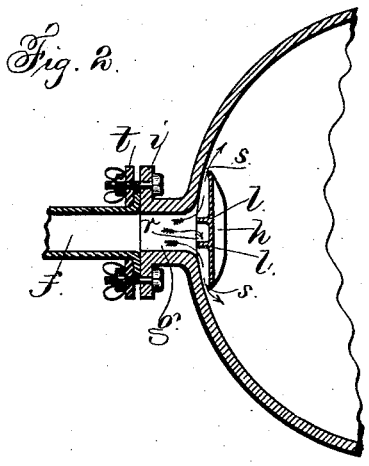
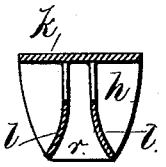


Fig. 3.



Witnesses
Harold Serrell
Chas. H. Smith

Inventor
per John Reid
Lemuel W. Serrell
Atty

UNITED STATES PATENT OFFICE.

JOHN REID, OF YONKERS, ASSIGNOR TO THE J. L. MOTT IRON WORKS, OF NEW YORK, N. Y.

DEFLECTOR FOR WATER-CLOSET BASINS.

SPECIFICATION forming part of Letters Patent No. 307,226, dated October 28, 1884.

Application filed April 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN REID, of Yonkers, in the county of Westchester and State of New York, have invented an Improvement in Deflectors for Water-Closet Basins, of which the following is a specification.

In water-closets in which there is a concave bottom and a dam at one end, over which the soil is washed into the discharge-pipe, difficulty has arisen in obtaining a sufficiently sudden and powerful rush of water to sweep the basin clean and at the same time to wash the sides of the basin.

My improvement relates to a deflector especially designed for this character of basin. Said deflector is intended to be made in porcelain, the clay being molded and the deflector placed inside the basin and luted and the basin baked and glazed; but this deflector might be made of any suitable material and attached to its place.

In the drawings, Figure 1 is a vertical section of the basin and deflector. Fig. 2 is a horizontal plan at the line *x x*, and Fig. 3 is an elevation of the inner side of the deflector as separated from the basin.

The basin is made with the concave bottom *a*, discharge-pipe *b*, and overflow or dam at *c*, and a rim, *d*, around inside the top edge. The inlet water-pipe *f* is attached to the basin at the side opposite to the discharge-pipe *b*. The tubular nipple *g* and the slotted wings *i* are usually formed in porcelain, with the rest of the closet-basin and the pipe *f* secured by a clamping-plate, *t*, and bolts. The tubular nipple *g* opens through the basin, and the inner end of the opening is flaring. The deflector is made of the plate *h*, with nearly vertical ribs *l* at the back, and a rib, *k*, along at the top. The deflector is made so that the surfaces of the ribs *l* and *k* are in contact with the interior of the basin, except where the ribs *l* cross the opening or water-way of the nipple *g*, and there are narrow openings at *s* for water to pass out and spread upon the sides of the basin; but the main opening for the flushing-water is at *r*, so that the water coming in through the pipe and nipple *g* is divided by the partitions *l l* into three streams. The side ones are thin and issue at *s*, and the center one issues downwardly, and it diverges and passes into and across the concave bottom with sufficient force to sweep the contents of the basin into the discharge-pipe.

I am aware that deflectors have been applied to the earthenware basins of water-closets, and in some instances these deflectors have had side openings and partitions; but such partitions were not arranged to direct the principal flow of the water downwardly, as in my improvement.

I claim as my invention—

1. The deflector for water-closet basins, formed as a plate, *h*, with narrow openings at *s*, between the edges of the plate and basin, and the broad diverging openings at *r*, there being ribs *l l* at the back of the plate, which ribs cross the opening through which the flushing-water is admitted, substantially as set forth.

2. The combination, in a water-closet basin, of a concave bottom, an inward rim around the top, and a deflector having divergent ribs *l l* between the deflector and the surface of the basin, such ribs being at the sides of the main water-channel that passes downwardly at *r*, and there being narrow openings at the sides between the basin and the edges of the deflector, substantially as set forth.

Signed by me this 4th day of April, A. D. 1884.

JOHN REID.

Witnesses:
MAX GOEBEL,
JAMES E. PALMER.